Saskatchewan
Parks and
Renewable
Resources

Prairie Pothole Project

Wildlife Technical Report 86-1

PRAIRIE POTHOLE PROJECT

- Phase 1 -

Final Report

February 28, 1986

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EXECUTIVE SUMMARY

The wetland complexes which occupy 80,000 km ^{2} of Saskatchewan's farmlands provide some of the continent's best waterfowl production habitat. These small wetlands, 80% of which are on private land, are being negatively impacted by agriculture to the extent that one-third of the basins and three-quarters of their margins are affected. The continued loss of habitat on the breeding grounds is one of the key factors responsible for a 37% decline from the 10 year average of Saskatchewan mallard populations.

A pilot project funded by Wildlife Habitat Canada was initiated by Saskatchewan Parks and Renewable Resources in the fall of 1985 to assess landowner receptiveness to a variety of options which may be used to secure long term protection of small, privately owned wetlands and associated upland nesting cover in agricultural Saskatchewan.

Private landowners in the Redvers study area are generally receptive to the concept of financial and program incentives to retain waterfowl habitat on their lands. Lease of waterfowl habitat to a wildlife agency was the predominant (77% of landowners) habitat retention option selected by respondents. A lease fee of $10/acre/year was considered fair and equitable by one-half of those interviewed. Long-term leases (10+ years) were considered acceptable by 36% of farmers.

Preparation of a proposal to Wildlife Habitat Canada to fund Phase II (the implementation phase) of the Prairie Pothole Project is recommended. Employing leases as the primary implementation mechanism, a scaled fee structure is proposed to provide a greater monetary incentive to those landowners willing to enter longer term lease arrangements. Other incentives such as property tax relief and wildlife compatible farming practices also warrant further consideration as wetland retention mechanisms.

ACKNOWLEDGEMENTS

We wish to acknowledge the assistance of the many landowners in the study area who provided the information forming the basis of this report. Appreciation is expressed to Wildlife Habitat Canada for providing funding for this project. Thanks also to the council of the Rural Municipality of Antler #61 for their cooperation. The interview team from the Wildlife Branch of Saskatchewan Parks and Renewable Resources did a superb job, as did the secretarial staff, who deserve special recognition. To Mr. Ed Kennett, who was always on hand to lend advice or input, we express our gratitude.

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1.0 INTRODUCTION

The mallard is the pre-eminent duck species in North America, comprising 36% of the continental duck harvest (Boyd 1985a) and 75% of the Saskatchewan duck harvest. However, since 1970, prairie mallard populations have declined at the rate of 19% per year (Brace & Caswell 1985). The Saskatchewan mallard population is currently 37% below the 10 year average (U.S.F.W.S. & C.W.S. 1985). The continued loss of habitat on the breeding grounds is one of the key factors responsible for this decline.

The pothole complexes which occupy 80,000 km ^{2} (30,000 mi^2) of Saskatchewan's farmlands provide some of the continent's best waterfowl production habitat. These small wetlands, 80% of which are on private land, make Saskatchewan the continent's leading duck producing area. Saskatchewan accounted for approximately 30% of the continental mallard production in 1985.

Intensifying agricultural activity, directed largely at marginal farmland in the last few years (Boyd 1985b), poses a serious long term threat to prairie waterfowl populations. Small wetlands are being drained at the rate of 1% -2% per year. In 1985, 33% of wetland basins and 68% of the basin margins in southeastern Saskatchewan were negatively impacted by agriculture (Brace and Caswell 1985).

Saskatchewan has identified retention of the prairie pothole wetlands as its top waterfowl habitat priority (S.P.R.R. 1985a). The draft North American Waterfowl Management Plan has, as its top priority, a similar objective. In the past, wetland preservation efforts directed at such "sloughs" have been encumbered by the very nature of the habitat - small, highly dispersed wetlands whose land use is governed entirely by private, primarily agricultural, interests.

To pave the way for the successful implementation of both the North American and Saskatchewan Waterfowl Plans, a pilot project funded by Wildlife Habitat Canada was initiated by the Wildlife Branch of Saskatchewan Parks and Renewable Resources (S.P.R.R.) in September 1985 (S.P.R.R. 1985b). This project is a logical follow-up to a survey of farmer attitudes toward wildlife conducted in 1984 by S.P.R.R. which indicated that 50% of farmers are receptive to retaining wildlife habitat provided they are financially compensated (Bergstrom 1985).

2.0 PROJECT OBJECTIVE

The primary objective of this pilot project was to assess landowner receptiveness to a variety of options which may be used to secure long term protection of small, privately owned wetlands and associated upland nesting cover in agricultural Saskatchewan. This is a report on Phase 1 of this project.

3.0 STUDY AREA DESCRIPTION

The study area is located in the Rural Municipality of Antler #61 in southeastern Saskatchewan near the town of Redvers (Fig. 1). The area encompasses 435 km^2 (168 mi^2) in Townships 7 and 8, Ranges 32, 33 and 34, West of the Principal Meridian. It is an extensively cultivated area of gently rolling glacial moraine in the black soil zone. Native vegetation largely consists of wetland complexes ringed by aspen and willow, typical of this southern edge of the aspen parkland. Grain farming is the main agricultural activity in the region, but a large number of farmers also raise cattle.

The project area was selected on the basis of four criteria:

1. It is typical of prairie/parkland pothole complexes and has high waterfowl production capability.
2. Drainage of wetland habitat is occurring, but the area's value to waterfowl has not been eliminated.
3. Previous data on waterfowl production in the area are available.
4. There are no known factors which could strongly bias farmers toward the project.

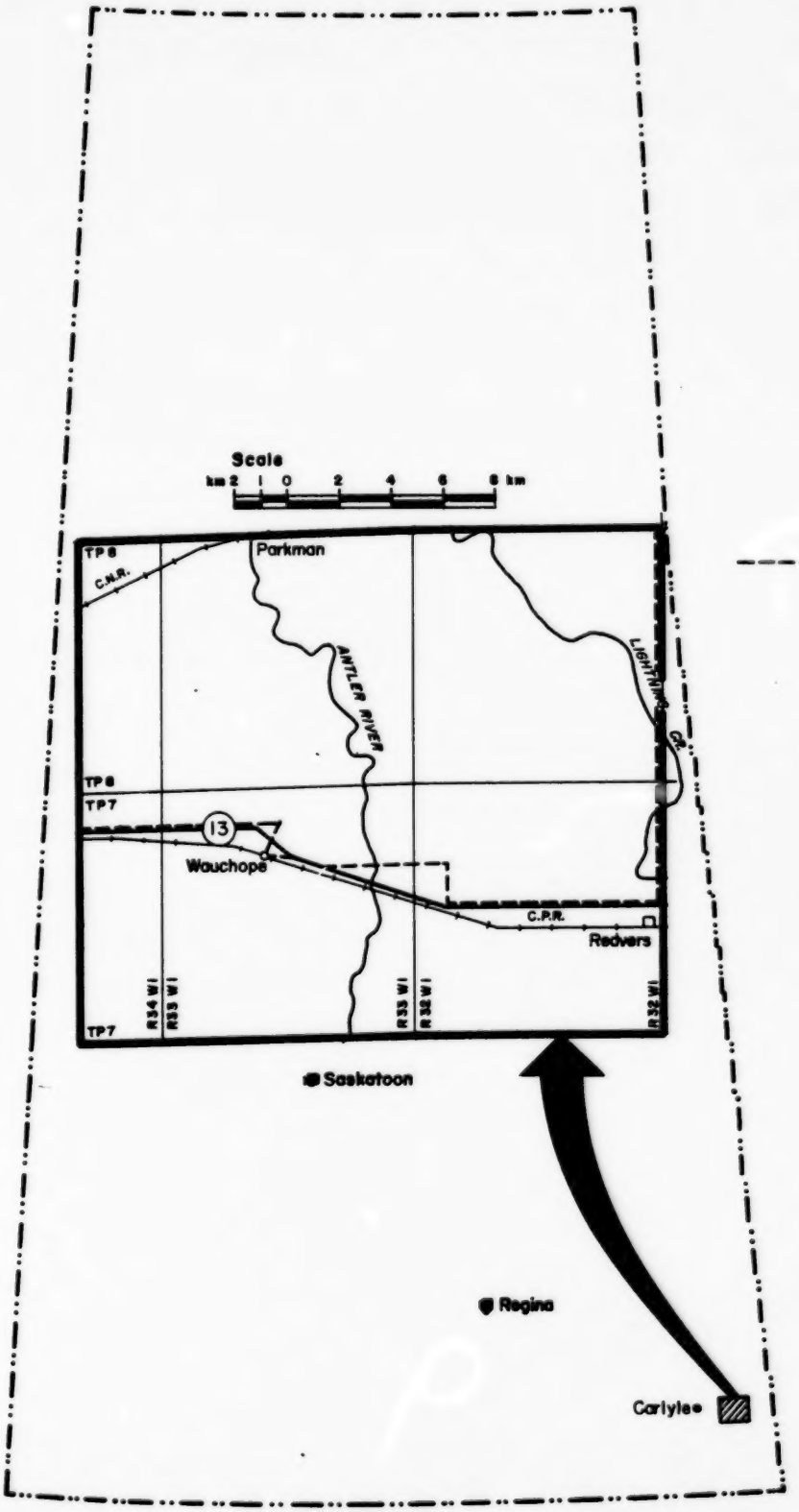

FIGURE I. LOCATION OF PROJECT AREA

All but 3% (1,300 ha. (3,212 ac.)) of the land in the study area is privately owned; hence most of the wildlife habitat is unprotected. Of the Crown-owned land, 777 ha. (1,920 ac.) are protected from sale or harmful alteration under The Critical Wildlife Habitat Protection Act. The Wildlife Development Fund has purchased 65 ha. (160 ac.) of native parkland within the project area for white-tailed deer production, a species present in high numbers throughout the area.

The study area is classed as excellent waterfowl production habitat (ie. Class 1 and 2) by the Canada Land Inventory. There are approximately 4,350 ha. (10,750 ac.) of wetlands in this region during wet years. The study area contains a portion of J.H. Stoudt's waterfowl transects monitored during the period 1952-66 (Stoudt and Buller 1952). The Rural Municipality of Antler was also the site of a pilot wetland habitat easement program conducted by the Canadian Wildlife Service in 1963.

4.0 METHODS

Project coordination and implementation was facilitated by the assignment of an existing staff member (Melinchuk) to the full time position of Project Leader and the hiring of a contractor (MacKay) for a 5 month period effective October 28, 1985.

In the intial stages of the project (September and October, 1985) several potentially interested government agencies and non-government organizations were advised of its inception. Among those contacted were the Saskatchewan Natural History Society, Saskatchewan Water Corporation, Saskatchewan Rural Development and Saskatchewan Agriculture. In addition, S.P.R.R. project staff held detailed meetings with representatives of key agencies and organizations, namely the Saskatchewan Association of Rural Muncipalities, Saskatchewan Wildlife Federation, Ducks Unlimited and Canadian Wildlife Service to outline the proposal and to solicit suggestions. Ed Kennett, area resident and past president of the Saskatchewan Wildlife Federation, volunteered his services as a "sounding board" and a community liason person for the project.

On October 28, 1985 S.P.R.R., Ducks Unlimited and Saskatchewan Agriculture officials toured the study area to familiarize themselves with the area and the progression of harvest. A preliminary contact was made with the Rural Municipality council at that time. A presentation of the project to the Rural Municipality Council took place on November 6. An orientation tour of the study area was also conducted with Wildlife Habitat Canada and Canadian Wildlife Service staff from Manitoba who are involved in a similar project there.

In late November as grain harvest was nearing completion, land ownership lists and an interview questionnaire (Appendix A) were compiled. Voter's lists were used to obtain up-to-date information on landownership. On December 4, an orientation seminar was given to the S.P.R.R. Wildlife Branch staff recruited to conduct the interviews. A land assessor, land negotiator, agricultural representative and an S.P.R.R. staff member briefed those in attendance. The topics discussed included project operating guidelines, land assessment procedures, land negotation tactics and the agricultural characteristics of the study area.

Landowner interviews were conducted from December 10 to 13 and 16 to 18, 1985. Each of the five participating biologists was assigned a segment of the study area to canvass. The majority of interviews were done on an unsolicited basis. Another appointment was scheduled in the event our initial contact proved inconvenient.

The questionnaire was personally-administered and data was collected directly from the landowner. Township photomaps were used to facilitate discussion with the landowner, and also to record any recent habitat changes. A list of the habitat retention options and associated level of monetary incentive was left with each landowner for his information and record. At the close of the interview, the farmer was presented with the photomap(s) of his land as a gesture of our appreciation for his participation. The interviewer departed and recorded his assessment of the meeting.

Due to the uncertain timing of harvest operations during the fall of 1985, publicity of the project was purposely withheld until interviews had been initiated. A press release announcing the project was issued December 12 to all media organizations in the province. Interviews were granted to 3 radio stations the following day. These brief interviews, explaining the purpose for the project were aired during the following week.

Coincident with the onset of landowner interviews, staff outlined the project to the Redvers Branch of the Saskatchewan Wildlife Federation on December 10. This presentation bolstered public relations and served to introduce the project and its staff to local residents, several of whom resided in the study area and were subsequently contacted for interviews.

5.0 RESULTS AND DISCUSSION

Eighty-seven (87) interviews were conducted in 7 days, representing 134 (68%) of the study area's 198 landowners and 77% of the study area's land base (Appendix B, Figure 2). This coverage was deemed a sufficient base for analyses and resulting recommendations. Some interviewees were lessees or associate farm operators (usually close relatives), and as such spoke on behalf of all registered landowners. Two landowners declined interviews on the basis of disinterest and/or conflicting time schedules.

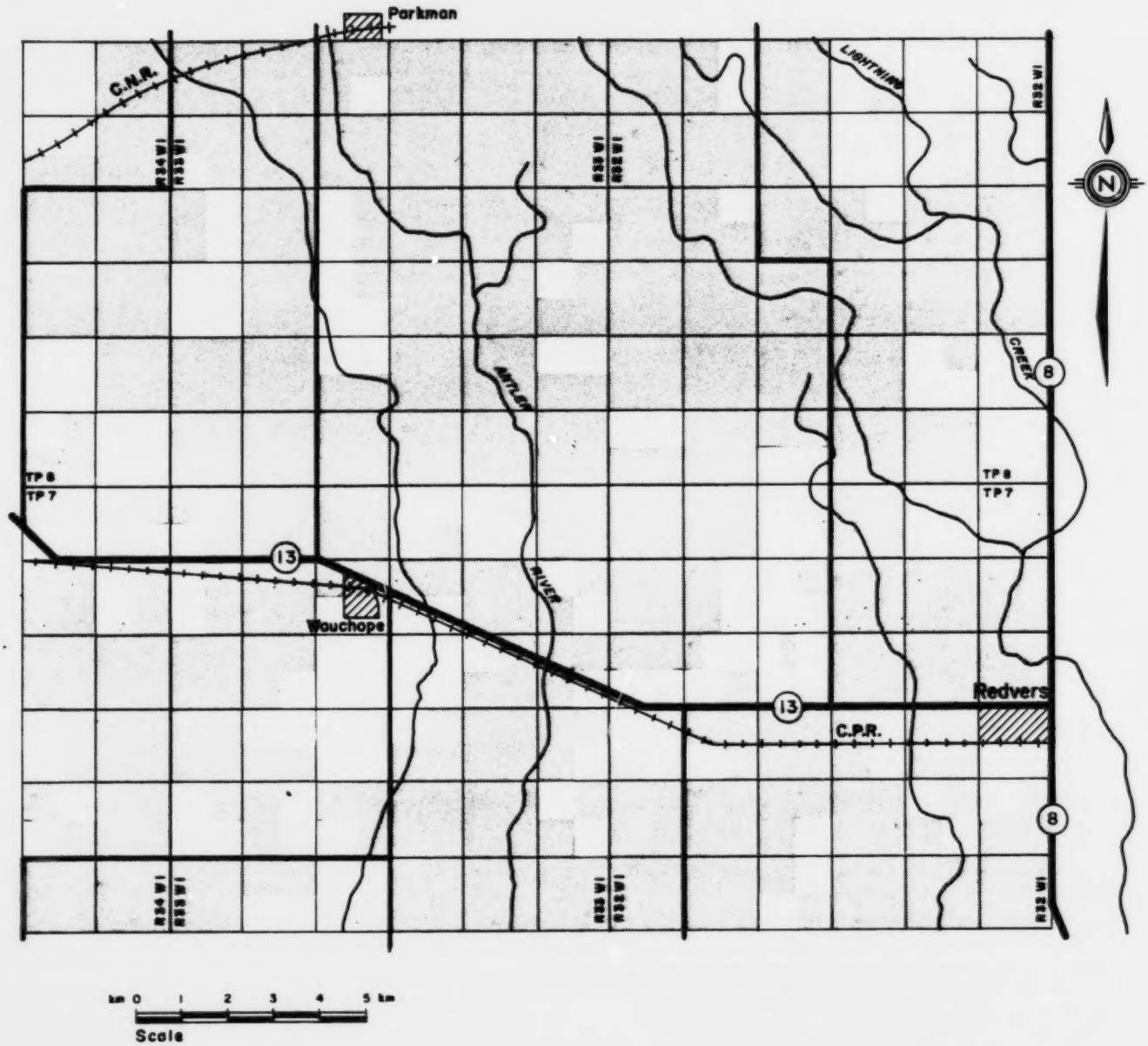

FIGURE 2 INTERVIEW COVERAGE OF PROJECT AREA

LAND OWNED BY FARMERS INTERVIEWED

5.1 LANDOWNER PROFILE

The landowners contacted during the course of this study were primarily of French or Scandinavian descent, although some of Scottish and Belgian ancestory were also encountered.

The Redvers landowner has farmed in the area for an average of 26 years; his family for 59 years. In the study area, 22% of the farmers interviewed were between the ages of 20 and 35, 38% were from 36 to 50, 27% were from 51 to 65 and 13% were 66 years of age and older. Of those landowners canvassed, 41% were grain farmers, while 59% ran mixed operations. Land holding averaged 365 ha. (903 ac.) in size, 3/4 of which was cultivated.

Two thirds of the landowners believed that clearing and breaking of native habitat during the last five years had negatively affected wildlife populations in the area. Of the landowners canvassed, 64% had cleared land totalling 1,750 ha. (4,325 ac.) since 1980, and 46% had drained approximately 1,110 ha. (2,740 ac.) during that time. Most (93%) of the drained land was brought into cultivation. The motivating factors were to increase farm income and to improve machinery maneuverability.

A large portion of the arable land in the study area has already been brought into production, a fact that is emphasized by landowners' attitudes toward future draining and clearing activities. Of those landowners interviewed, 60% and 67% respectively, had no further plans for draining or

clearing. In the case of those planning future habitat modifications, the motivating factors were once again increased income and improved machinery maneuverability.

5.2 SELECTION OF HABITAT RETENTION OPTIONS

The following discussion of habitat retention options is presented in descending order of preference. When given the opportunity, 78 (90%) of the 87 landowners interviewed indicated a primary choice of available options. Sixty-eight percent of respondents were able to identify a second choice. The variation in number of respondents expressing first and second choices stemmed from the fact that 19 interviewees had either no opinion on a second option or could identify only one option of interest to them.

5.2.1 Lease

Lease of waterfowl habitat to a wildlife agency was chosen by 77% of landowners as the most suitable and attractive option available (Fig. 3), and as such was the predominant choice of respondents. Nineteen percent (19%) of those who did not choose leasing as their prime option selected it as a suitable second alternative.

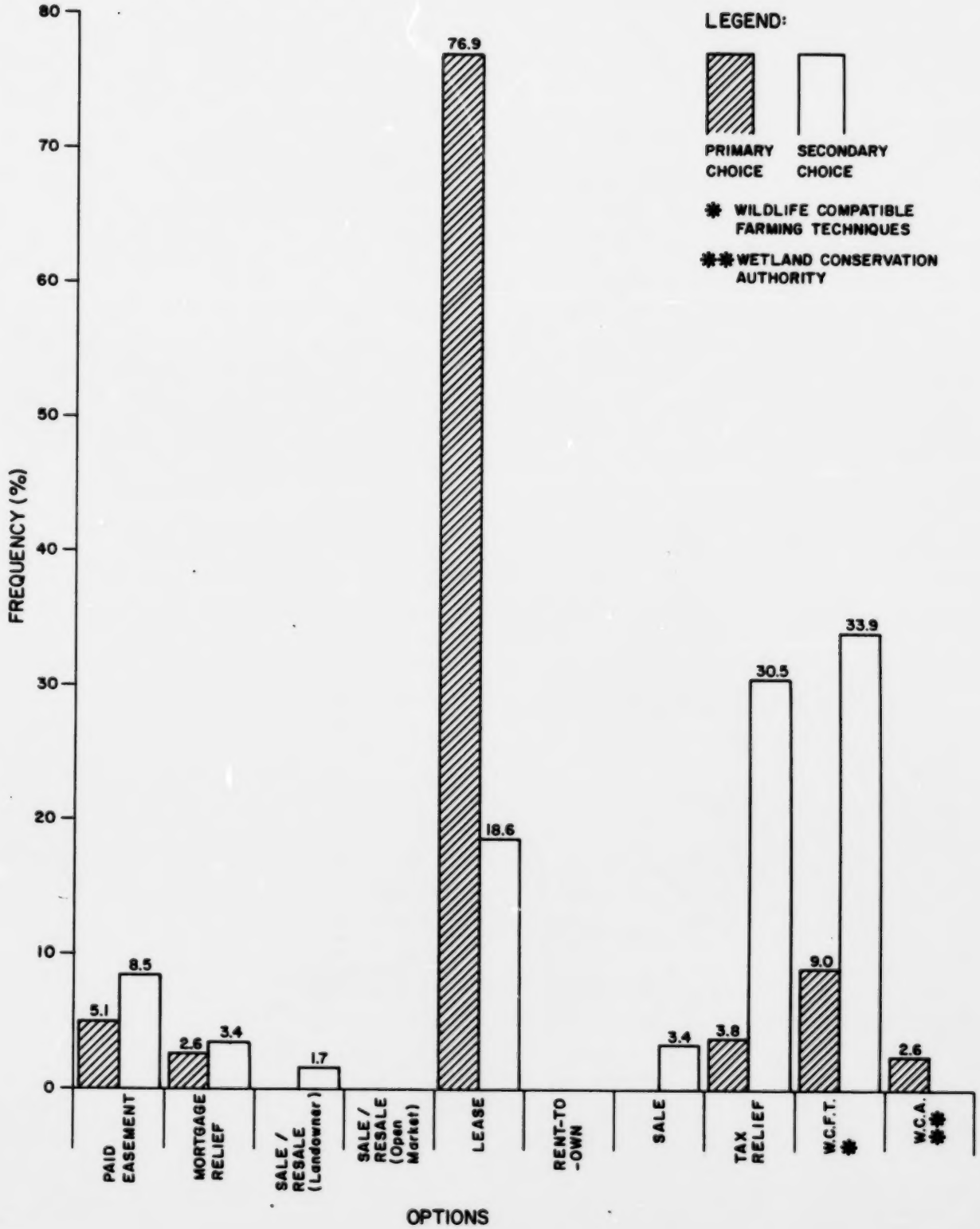

FIGURE 3 LANDOWNER PREFERENCE FOR HABITAT RETENTION OPTIONS

Based on the response of 55 landowners, suggested lease fees ranged between $5 and $50/acre/year. Using modal values, $10/acre/year was considered by 27 landowners (49%) as a fair and equitable lease fee. Rates of $7.50 and $12.50/acre/year were equally selected by 9% (5 of 55) of respondents, and as such ranked second in order of preference. Two landowners indicated a fee would not be necessary. As a matter of comparison, pasture rental rates in this rural municipality approximate $10/acre/year or less. Morgan (1985) recommended that wetlands and adjacent upland cover blocks be leased at a rate equal to pasture rental.

When questioned concerning an acceptable lease term, 67 of 87 (77%) interviewees responded recommending lease terms varying from 1 to 30 years. The lease term chosen most frequently was 5 years (28% of respondents). Three and 10 years were each selected by 21% of respondents as a desirable lease term. Lease terms of 10 or more years were considered acceptable by 36% of respondents. Five respondents indicated any term of lease would be suitable whereas two suggested the term should be "open", thereby allowing the landowner flexibility to choose an acceptable lease term.

Two of the criticisms of the easement program implemented by the Canadian Wildlife Service in western Canada in the late 1960's were that it lacked the degree of economic incentive necessary to preserve pothole habitat, and that the term of the easement agreement (10 years) was not adequate (C.W.S. undated). Given that the objective of the current project is to secure long-term protection for wetland habitat, it is anticipated that

a mutually-agreeable lease term should fall between 10 years and perpetuity. The changing agricultural "climate" and human nature dictates that farmers are unlikely to enter any agreement, regardless of the level of monetary compensation, for an infinite time period. Based on the results of this landowner survey, lease terms of 10 to 30 years are considered realistic, given the incorporation of certain provisions. The longer the term of the lease, the greater the security of that habitat and therefore the greater the biological benefit of that lease to waterfowl. A scaled fee structure, based on the term of a lease, would theoretically provide a greater financial incentive to those landowners willing to enter longer term lease agreements. The following fee structure is proposed:

Term of Lease	Lease Fee ($/acre/year)
5 years	$8
10 years	$12
15 years	$15
20+ years	$20

Each lease agreement should contain a 5 year review or adjustment clause to accommodate shifts in agricultural markets, individual landowner situations, waterfowl habitat preservation priorities, etc. Additional lease conditions to be considered include enforcement of the agreement, permitted activities (eg. oil and gas exploration, haying, grazing), and an escape or termination clause.

5.2.2 Wildlife Compatible Farming Techniques

Seven respondents (9%) considered provision of some form of mutually beneficial habitat management technique to be the most attractive option presented (Fig. 3). This option was the second choice of 34% of the 59 respondents. Under this option, landowners would agree to protect designated areas of habitat for a given period of time in return for the wildlife agency's committment to offset the costs of implementing such habitat protection measures. Rest-rotation grazing, minimum or zero tillage, slough consolidation, upland cover and salinity plantings, use of flushing bars, goose stocking and dug-out construction were given as examples of techniques which would be included under such an option. It became apparent during the course of interviews however, that not all these management techniques would be applicable to the Redvers study area.

Although this option ranked a distant second to leasing, implementation of such natural resource conservation measures either solely or in combination with other options, should be considered. Significant public education and information benefits would accrue from such efforts, creating an increased awareness of the program and its positive implications to both agriculture and wildlife. Morgan (1985) reported a large degree of acceptability for similar programs among landowners wishing to increase waterfowl numbers on their property in Manitoba.

5.2.3. Property Tax Relief

A relatively small proportion (4%) of landowners favored property tax relief as a primary habitat retention option (Fig. 3). Thirty-one percent (31%) of those indicating a second preference selected this as an option. In outlining this option to the interviewee, (Appendix A-11(h)), the question "What would you consider a fair tax rate?" was posed. In general, suggested rates were much higher than existing tax rates, and more closely approximated lease rates, indicating farmers were either unaware of the current tax rate for wetlands or that they did not consider payment of property taxes on wildlife habitat acreage an attractive incentive. It was recognized by many landowners that the amount of money involved was relatively small. The R.M. council's proposed administrative role in this option was also criticised in that the transaction process excluded the landholder or that the Council may not be a fair and just body.

Morgan (1985) reported 76% of 50 landowners residing in portions of 11 R.M.'s in southwestern Manitoba in favor of removing wetlands and other marginal lands from municipal tax rolls. On this basis, he recommended removal of property taxes from wetlands, woodlots and idle areas and that tax notices be itemized to reflect the agricultural capability of the land. Although this information is detailed on every Saskatchewan landholder's assessment field sheet, it is not itemized on the tax notice and would require extensive modification to the present taxation billing system (Lynch, pers. comm.).

Half the Saskatchewan farmers canvassed by Bergstrom (1985) stated they would postpone habitat alterations if reimbursed for that portion of taxes paid on areas of native habitat. Approximately one-third indicated they would actually increase the amount of wildlife habitat on their holdings should such an incentive be offered.

The USDA Soil Conservation Service and The Pepin County Land Conservation Committee successfully implemented a conservation credit program in Wisconsin in 1984 (Griswold 1985). Under this program, landowners were given a $3.00 per acre property tax rebate as an incentive to control soil erosion. Conservation-oriented farm practices such as crop rotation, conservation tillage, and contour and strip farming were eligible practices. The potential appears to exist for a cooperative venture of this type between Saskatchewan Agriculture, the Saskatchewan Water Corporation and one or more wildlife agencies. It is envisioned that in order for such a program to be effective in Saskatchewan, it would have to encompass a broader range of wildlife compatible farming techniques and be directed more toward wetlands and associated upland nesting cover.

Although the results of the Redvers survey indicate the presence of more highly preferred options (eg. lease), a system of property tax relief should be examined as an ancillary incentive program. It's greatest attraction would be as an option to those landowners not wishing to enter into a lease agreement. Such a program would facilitate habitat retention for a relatively small annual investment by the wildlife agency. Utilizing the assessment information available from the Saskatchewan Assessment

Authority, appropriate acreages and taxes could be calculated and paid directly to the R.M. on behalf of the landowner.

5.2.4 Other Options

Sale, paid easements, mortgage relief, and Wetland Conservation Authority formation options were viewed with varying, but generally low, degrees of acceptability.

Sale of wildlife habitat, regardless of how it was facilitated (see Appenidix C 11 (c), (d), (f) and (g)) was not considered an attractive option by landowners in the project area. None of the options pertaining to sale to a wildlife agency were selected as a prime choice (Fig. 3). Sale was chosen secondarily by only 3 (5%) of 59 respondents. The reasons given for rejection of this option are provided in Appendix C. Sale was also unanimously rejected by Manitoba landowners (Morgan 1985). This is unfortunate in that permanent security achieved through purchasing wildlife habitat is otherwise unattainable. On the other hand, increased government intervention in the market place and the high cost of buying and maintaining land are major drawbacks to purchase from a wildlife agency perspective.

Paid easements were favored as a primary option by only 5% of landowners and as a second or alternative option by 9% of those expressing an opinion (Fig. 3). The major criticisms were that an easement was too binding or restrictive to farming operations, or that it affected the marketability of the land because of the associated encumberance on the title. Bergstrom(1985) found one half of the farmers to be receptive to the concept of easements for habitat retention although differences in survey methodologies may preclude direct comparison of results. Restrictive covenants and perpetual easements, synonymous with paid easements, were rejected as incentives to wildlife habitat preservation by 98% of landowners in Manitoba (Morgan 1985). This mechanism may be applicable in rare instances (eg. retiring landowners), as suggested by Morgan (1985).

Mortgage relief received little acceptance as a financial incentive to landowners. Only 3% preferred it over all other options or selected it as a suitable second option (Fig. 3). It appeared to have limited applicability to farmers in the study area as many of the farms were mortgage free (Appendix C). This potential shortcoming was recognized by Kemp (1985) in his examination of mortgage relief. He suggested a mortgage relief program be coupled with a program of annual payments to landowners who are prepared to retain habitat and who do not have a mortgage. However, insufficient interest was expressed by landowners in this survey to warrant consideration of a mortgage relief program in the Redvers area.

The concept of Wetland Conservation Authorities (WCA) was favored by only 3% of the landowners (Fig. 3). Enactment of this option would involve the formation of a WCA by a group of interested landowners willing to sponsor a wetland retention program. An annual grant would be made available to the Authority for the lease or improvement of wetland habitats in the WCA area. This option was patterned after the Conservation Area Authority (CAA) approach adopted by Saskatchewan Agriculture for drainage and flood control works under authority of the Conservation and Development Act and The Watershed Association Act. Until such time as additional evidence becomes available to support the introduction of such a program, other options will take precedence.

5.3 PROJECT COSTS

Approximately $39,000 was expended on this project, principally on manpower and field expenses (Table 1). The Wildlife Development Fund of Saskatchewan Parks and Renewable Resources received a $28,500 grant from Wildlife Habitat Canada to cover the costs of hiring staff and conducting the associated fieldwork. Planning, drafting and secretarial services were absorbed by the Wildlife Branch of SPRR and have not been included as project costs.

Prior to the commencement of the interview process, certain expenses associated with project co-ordination and interagency liaison were incurred (Table 1). Field expenses during the interview period totalled $10,757. In total, 87 interviews were conducted for an average cost per completed interview of $124.

Table 1. Phase 1 Expenses

Interview Expenses	
Man-Day Cost	$ 6,375
Meals and Accommodation	1,843
Mileage	1,896
Photomaps	608
Miscellaneous	35
Sub Total	$ 10,757
Additional Project Expenses	
Staffing	$ 27,650
Meals and Accommodation	37
Mileage	251
Sub Total	$ 27,938
GRAND TOTAL	$ 38,695

6.0 SUMMARY AND RECOMMENDATIONS

Private landowners in the Redvers area are generally receptive to the concept of financial and program incentives to retain waterfowl habitat on their lands. The high degree of preference shown for leasing habitat to a wildlife agency, the fair and realistic lease rates proposed and a willingness to enter into long-term (ie. 10+ year) agreements suggests that this mechanism should be implemented in the study area. Other incentives such as property tax relief and wildlife compatible farming practices also warrant further consideration as wetland retention mechanisms.

Recommendations

1. Request S.P.R.R. approval to proceed with Phase II of the Prairie Pothole Project.

2. Prepare a Phase II funding proposal for submission to Wildlife Habitat Canada by April 1, 1986.

3. Draft a 5 year agreement between Saskatchewan Parks and Renewable Resources and Wildlife Habitat Canada to facilitate the implementation of Phase II and any associated transfer of funds.

7.0 LITERATURE CITED

Bergstrom, E.D. 1985. Farmer wildlife survey: attitudes of farmers toward wildlife, wildlife use and habitat retention in Saskatchewan. Sask. Parks & Renew. Resour. Wildl. Tech. Rept 85-3. 64 pp. & App.

Boyd, H. 1985a. The reported kill of ducks and geese in Canada and the USA, 1974-82. Can. Wildl. Serv. Occ. Paper No. 55. 22 pp.

Boyd, H. 1985b. The large-scale impact of agriculture on ducks in the Prairie Provinces, 1956-81. Can. Wildl. Serv. Prog. Notes No. 149. Ottawa. 13 pp.

Brace, R.K. and F.D. Caswell. 1985. Prairie waterfowl status report: a briefing document. Can .Wildl .Serv. Rept. 18 pp.

Canadian Wildlife Service. Undated. A review of the wetland easement program for wetland preservation in Western Canada. Can. Wild. Serv. Unpubl. Rept. 6 pp.

Griswold, J. 1985. Conservation credit: a property tax differential assessment approach to motivation for implementation and maintenance of conservation. Ann. Mtg. Soil Conserv. Soc. Am. St. Louis. Aug 4-7, 1985.

Kemp, G. 1985. Mortgage relief and habitat retention on private land. Prism Environ. Consult. Serv. 22 pp.

Lynch, B. pers. comm. Education and extension coordinator. Sask. Assessment Authority

Morgan, J.P. 1985. An analysis of landowner attitudes toward techniques of wetland preservation in the prairie pothole district of Manitoba. M. Nat. Resour. Mgmt. Univ. Man. Nat. Resour. Inst. 113 pp.

Saskatchewan Parks and Renewable Resources. 1985a. Waterfowl management plan for Saskatchewan. Sask. Parks Renew. Resour. Unpubl. Rept. 17 pp.

Saskatchewan Parks and Renewable Resources. 1985b. Prairie pothole project. Sask. Parks Renew. Resour. Unpubl. Rept. 19 pp.

Stoudt, J. H. and R. J. Buller. 1952. Waterfowl breeding ground survey of Redvers area, Saskatchewan Pages 55 - 64 in U.S.F.W.S. and C.W.S. Waterfowl populations and breeding conditions summer 1952. Spec. Sc. Rept. Wildl. No. 21.

United States Fish and Wildlife Service and Canadian Wildlife Service. 1985. Waterfowl breeding population survey - southern Saskatchewan. Unpubl. Rept. 6 pp.

Appendix A. Landowner questionnaire used in Phase 1

DATE _____

1. Name of Landowner

   _____ _____ _____
   Surname Given Name Initial

2. Address _____
   Box Number, Town, Postal Code
   Phone Number _____

3. Age of Landowner (Optional) 20-35 ___ 36-50 ___ 51-65 ___ 66+ ___

4. Location of Home Quarter

   _____ _____ _____ _____ W
   Quarter Section Township Range Meridian

5. How much land do you own in this Rural Municipality?
   (circle one: quarters/ sections).

   _____

6. a) How long have you been farming in this area?

   _____ years

   b) How long has your family farmed in the area?

   _____ years.

7. What type of farm do you operate?

   Cattle ____
   Grain ____
   Mixed ____
   Other ____ (specify) _____

8. How much of your total land holding is:

   a) Cultivated
   - Tame Grass _____
   - Forage Crops _____
   - Grain Crops and Summerfallow _____
   Total Cultivated Acres _____

   b) Non-cultivated
   - Native Grassland _____
   - Bush/Shrubland _____
   - Sloughs and Wetlands _____
   Total Non-Cultivated Acres _____

9. In looking at this photo, does it accurately reflect the types of habitat on your land?

   Yes ____ No ____

   Interviewer's Note: Note any habitat discrepancies directly on the photo.

10. We've selected the R.M. of Antler as a test area to see if we can figure out ways to preserve and enhance waterfowl habitat on private land in the province and at the same time help the farmer out. I'd like your opinion on how we could best accomplish this.

Interviewer's Note:

Place emphasis upon the farmer's own opinions. We are not trying to put words in his mouth. Proceed to the list of options in question 11 even if a response is provided to this question and get the landowner's opinion on these other options.

_____

_____

_____

_____

_____

11. I'd like your opinion on some other incentives we have thought of to retain wildlife habitat. (Check which options are of interest).

Interviewer's Note:

These incentives are general concepts, and provided to stimulate thought and discussion on the part of the landowner. Feel free to paraphrase or change order.

____ a) An easement, in which you are paid a fee based on the market price of the land, in return for a guarantee that certain identifiable habitats will not be altered for an agreed-upon period of time.

Option: ___ One-Time Payment ___ Annual Payment
___ Multiple Payment
Term of Easement _____ years

____ b) Mortgage relief, in the form of a buy-down of your mortgage in return for an agreement to protect designated habitats. This lump sum payment would go directly to the lending institution, and be applied to the principle, thereby lowering your annual interest payment.

____ c) Sale of the land to a wildlife agency, and your re-purchase of the same land from the agency, less approximately $100 per acre of wildlife habitat secured. A caveat would be filed permitting those activities considered compatible with wildlife to take place on these lands (i.e. grazing, haying).

____ d) This option would be the same as option (c) except that the lands are offered for resale to any buyer.

____ e) Lease of areas of wildlife habitat for a specified time period. Payment of approximately $10 per acre (10% of purchase price) per year. Term of Lease _____ years.

____ f) Annual lease payments from a wildlife agency on a rent-to-own basis for a designated parcel of habitat. At the end of the lease period, title to those acreages would be transferred to the agency.

____ g) Sale of parcels of habitat on your land to a wildlife interest.

____ h) Tax relief, in the form of payment of those annual taxes levied against certain areas of habitat in return for an agreement to protect these areas. A pre determined tax rate per acre would be paid directly to the rural municipality. What wou you consider a fair rate of payment? $_____/acre.

____ i) Your approval to protect areas of wildlife habitat in return for our agreement to offset the costs of implementing management techniques of benefit to both you and wildlife (i.e. rest rotation grazing, slough consolidation, cover plantings, goose stocking, etc.).

____ j) A group of interested landowners, through the formation of a Wetland Conservation Authority (WCA) would sponsor a program for the retention of wetlands in their area in return for an annual grant to the WCA for the preservation of these habitats.

12. Of those options you have identified, which one appeals to you the most? Second?_____

13. a) How much land have you improved through drainage in the last 5 years?

_____

b) How much of the above land did you also break and bring into cultivation?

_____

14. How much bush or native prairie have you cleared or broken in the last 5 years?

_____

15. If you have cleared, broken or drained land in the past 5 years, what were the reasons for doing so?

Interviewer's Note:

Do not read the following answers aloud; allow farmer to volunteer answers and place an "X" after each reason that he/she mentions. If a reason is given that is not listed, place an "X" in th space after "other", and record the response.

a) to discourage the presence of wildlife and/or hunters ___

b) to increase income ___

c) to "clean up" weedy areas ___

d) to eliminate areas where grasshoppers and other insects live ___

e) bulldozing equipment was in area ___

f) to provide better visibility (of livestock, road, etc.) ___

g) to increase ease of manoeuvring machinery ___

h) to remove water from flooded land ___

i) to lower the water table ___

j) irrigation ___

k) to control beaver problems ___

l) other _____

16. Do you think that breaking and clearing of native habitat in the last 5 years is significantly affecting wildlife populations in your area?

1	Yes	_____
2	No	
3	Undecided	

17. a) Do you plan to convert any areas of habitat into agricultural land in the forseeable future?

1	Yes	i)	Sloughs & Creek Bottoms	___
2	No	ii)	Native Grassland	___
3	Undecided	iii)	Bush or Shrubland	___

b) If yes, what would be your reasons for doing so?

i) to discourage the presence of wildlife and/or hunters ____

ii) to increase income ____

iii) to "clean up" weedy areas ____

iv) to eliminate areas where grasshoppers and other insects live ____

v) bulldozing equipment was in area ____

vi) to provide better visibility (of livestock, road, etc.) ____

vii) to increase ease of manoeuvring machinery ____

viii) to remove water from flooded land ____

ix) to lower the water table ____

x) irrigation ____

xi) to control beaver problems ____

xii) other _____

18. Is there anything you wish to add?

_____

_____

_____

_____

_____

19. Interviewer's assessment of the meeting.

_____

_____

_____

_____

_____

_____

_____

_____

Appendix B. **List of landowners interviewed during Phase 1 as represented by themselves, a family member or other individual**

Bax, Daryl
Bax, Dwaine
Belisle, Armand
Bernuy, Andre C.
Bernuy, Francis J. (estate)
Boutin, Henry
Butson, J.I.
Butson, Kenneth
Chapman, William
Colleaux, Maurice
Cruywels, Edgar
Dangstorp Farming Ltd.
Dangstorp, Harold
Delalleau, Aime
Delalleau, Clovis
Delmaire, Emile G.
Dennis, Neil W.
Dube, D. L.
Dube, K. G.
Entwistle, D.
Entwistle, Fred J.
Entwistle, L.
Erickson, John
Erickson, Marius
Fowler Twigge Ranch Ltd.
Frecon, Albert
Gaudet, Paul P.
Gervais, Bryan O.
Gervais, Octave
Gervais, Randy W.
Hamilton, Roy
Hansen, Erik
Hjertaas, Blain
Hjertaas, E.
Hjertaas, G.
Hjertaas, Ralph
Hjertaas, Warren
Hortness, Melvin W.
Hutton, G. Bruce
Jorgensen, Albert
Jorgensen, Hans
Jorgensen, Verne
Jorgensen, Victor
Kenler, Rene
Kennedy, Edward J.
Keyes, Dan
Keyes, Marion
Keyes, Robert
Keyes, William
Lane, Gordon
Larson, Edwin
Larson, Francis
Larson, Harold
Larson, Ralph
Lauritsen, Bent
Lauritsen, Doris
Lauritsen, Laust
Laval, Alfred
Lees Enterprises Ltd.
LeNouail, Henriette M.
LeNouail, Henry
LeNouail, Lucien
LeNouail, Marie
LeNouail, Marie T.
LeNouail, Marthe
LeNouail, Regis
Madsen, Anna
Madsen, John
Madsen, Peter
Mailhiot, Bertha
Martel, Marion
Martin, Henry
Martin, Jules
Martin, Lucien
McCaskell, Archie
McCaskell, Keith
McWhirter, Dunbar
Meadows, Lloyd
Miller Bros. Agro Ltd.
Miller, Carol
Miller, H. J.
Miller, Harold
Miller, Henry
Miller, Kenneth
Miller, Milton
Miller, Ross E
Miller, Steven
Mohrbutter, Dellan
Mohrbutter, Fritz
Mohrbutter, Henry

Netherland Investment Co.
Nielsen, Brian
Nielsen, Nels
Nielsen, V. G.
Olsen, Ahlmann
Palendat, Paul
Pedersen, Bendt
Perreaux, Lucien
Pirlot, Brith
Pirlot, Joseph
Purvis, Blaine
Purvis, Clarence
Purvis, Greg
Purvis Howard
Purvis Jeff E.
Purvis, Norman
Quennelle, Maurice
Quennelle, Shiela
Raimbault, Jean H. J.
Raimbault, Joseph
Reddick, Douglas
Reddick, Jean
Rogg, Gerard
Sanders, David L.
Sanders, Fred J.
Sanders, Neale M.
Taylor, Donald
Taylor, Martin
Toms, C.
Toms, Franklin
Toms, Glenda
Toms, Grant
Toms, J.V. Jr.
Toms, R. F.
Toms, R. F. Jr.
Toms Valley Farms Ltd.
Truman, Wayne
Twigge, Glynn
Twigge, Gordon
Wotta, Eugene
Wotta, John A.
Zander, Joseph
Ziegler, Ivan
Zelionka, Edward

Interviews Refused:

Barlow, Kenneth
Toms, Fred

Appendix C. Landowner comments concerning rejection of options

a) An **easement**, in which you are paid a fee based on the market price of the land, in return for a guarantee that certain identifiable habitats will not be altered for an agreed-upon period of time.

- written agreements were not appealing
- the arrangement is too binding
- do not want anything that goes on title
- have had bad experiences with oil companies

b) **Mortgage relief**, in the form of a buy-down of your mortgage in return for an agreement to protect designated habitats. This lump sum payment would go directly to the lending institution, and be applied to the principle, thereby lowering your annual interest payment.

- does not directly apply - many farms paid off
- a few hundred dollars won't make much difference
- landowner should receive money instead of bank
- this only applies to young farmers in debt
- the agency would be telling farmers what to do

c) **Sale** of the land to a wildlife agency, and your **re-purchase** of the same land from the agency, less approximately $100 per acre of wildlife habitat secured. A caveat would be filed permitting those activities considered compatible with wildlife to take place on these lands (i.e. grazing, haying).

- no agreements in writing wanted - too much government interference in this arrangement
- too restrictive to landowner
- too much paperwork required
- arrangements should be more negotiable
- this would interfere with the land if the farmer wanted to sell
- do not want anything that goes on the title
- this isn't much good for small parcels, it may work for larger ones
- a good deal for the wildlife agency, but not for the farmer

d) This option would be the same as option (c) except that the lands are offered for **resale to any buyer.**

- this would interfere with land sales
- not preferred, since it would go on the title

e) **Lease** of areas of wildlife habitat for a specified time period. Payment of approximately $10 per acre (10% of purchase price) per year. Term of Lease _____ years.

- NO NEGATIVE COMMENTS RECEIVED

f) Annual lease payments from a wildlife agency on a **rent-to-own** basis for a designated parcel of habitat. At the end of the lease period, title to those acreages would be transferred to the agency.

- farmer wishes to keep the land together in his own name
- this cuts land into chunks, making taxing difficult
- this arrangement may harm younger farmers as opposed to older ones

g) **Sale** of parcels of habitat on your land to a wildlife interest.

- farmer wishes to keep all land under his name
- splitting land up creates a taxing problem
- this is too restrictive to future buyers
- if the wildlife agency folded, others could come in and buy the land
- since this affects further sale, farmer may only sell non-arable portions

h) **Tax relief**, in the form of payment of those annual taxes levied against certain areas of habitat in return for an agreement to protect these areas. A pre-determined tax rate per acre would be paid directly to the rural municipality. What would you consider a fair rate of payment? $_____/acre.

- this option sounds too much like government
- the money involved should come directly to the farmer
- the R.M. may be collecting the farmer's interest
- the R.M. may not be fair about this option
- relief of only property taxes on the land doesn't amount to much
- this may raise the cost to wildlife too high
- this option involves too much extra bookwork

i) Your approval to protect areas of wildlife habitat in return for our agreement to offset the costs of implementing **management techniques** of benefit to both you and wildlife (i.e. rest rotation grazing, slough consolidation, cover plantings, goose stocking, etc.).

- rest rotation grazing may not work where you have lots of trees
- this is not applicable to grain farmers (except slough consolidation)
- this only works on some habitat areas - not all of them

j) A group of interested landowners, through the formation of a **Wetland Conservation Authority** (WCA) would sponsor a program for the retention of wetlands in their area in return for an annual grant to the WCA for the preservation of these habitats.

- it is hard to get farmers to agree on something
- farmers often want to be independent of each other
- grain and livestock farming may conflict here - grin farmers want to clear and break all available areas
- this is alright for sloughs, but not for arable land.